TracyTalk: Quantum eMotion and the Power of Randomness — Preparing for the Quantum Computing Threat Horizon

written by Tracy Hughes | October 20, 2025
In the TracyTalk series, I review one public company per column — perform a Google News search, sift through its most recent quarterly releases, explore its website, and check the CEO's LinkedIn profile. Then I craft a summary of what this research yields. My goal is to deepen my own understanding — but importantly, this is **not** investment advice. I am **not** a licensed investment advisor. With that philosophy in mind, today's look is at **Quantum eMotion Corp.** (TSXV: QNC | OTCQB: QNCCF | FSE: 3400).

Just when one might assume the quantum security niche is purely theoretical, Montreal-based Quantum eMotion (QeM) is taking steps that suggest it's trying to fuse lab-stage innovation with real-world deployment. Under the stewardship of CEO Dr. Francis Bellido, whose LinkedIn profile lists over 35 years' experience in cybersecurity, healthcare and finance (including a life-science investment fund and senior roles at Eli Lilly), the company is attempting to bridge academic proof-of-concepts with commercial hardware and system implementation. That track record — a PhD in sciences, MBA, seasoned board roles, and executive leadership of multiple start-ups — gives Bellido's rhetoric some ballast.

One of the most intriguing elements of QeM is its embrace of true randomness as the strategic weapon in the quantum era. Its patented quantum random number generator (QRNG) leverages

quantum tunnelling phenomena — inherently unpredictable at the particle level — to create entropy foundations that classical and quantum adversaries struggle to anticipate. QeM <u>announced</u> in May 2025 that its 65 nm CMOS hybrid chip design had entered fabrication at TSMC after lab validation, enabling more than 1 Gbit/sec of quantum entropy generation. More recently, on September 22 the company, in partnership with Krown Technologies, announced completion of the "Qastle" quantum-safe hot wallet, integrating QeM's QRNG with blockchain security architecture. Beyond wallets, QeM's September 29 disclosure of a strategic alliance with Jmem Technology Co., Ltd. to co-develop a quantum-resilient system-on-chip (SoC) pushes the randomness strategy into embedded systems. Most recently the engagement of Lightship Security Inc. for NIST FIPS 140-3 validation underscores that the true-random foundation is being positioned for regulated-environment deployment.

This focus on randomness is subtle but important: quantum computing threatens deterministic cryptography, but if you build an entropy engine rooted in quantum uncertainty, you flip the script. QeM's narrative is about "giving attackers nothing predictable to exploit" — randomness as defence. Bellido has highlighted this direct line between quantum unpredictability and robust security in LinkedIn commentary (for example, "embedding quantum tunnelling in CMOS is our irreducible complexity against future adversaries"). That message resonates with buyers of mission-critical systems where risk appetite is low and the cost of failure is high.

From the vantage of capital markets professionals, QeM's strategy ticks several boxes: credible leadership, differentiated tech (QRNG and system integrations), clear application vectors (digital assets, embedded systems, infrastructure), and near-term proof-points around wallet and SoC development. That said, deploying randomness is less

glamorous than deploying products — there is a gap between "architecture validated" and "chips in field at scale", and the market will watch execution.

For an institutionally minded reader, the key questions loom: can QeM's hardware become commoditised in high-volume segments? Can its randomness ecosystem gain traction in standards-driven regimes? And will the partnerships announced translate into revenue and adoption? The recent news cycle suggests progress; the QRNG chip entering fabrication and wallet completion push the company from "promise" toward "proof".

In conclusion, Quantum eMotion Corp. presents a compelling infrastructure-story at the intersection of quantum science and cybersecurity. Its randomness-centric narrative makes sense in a future where predictable cryptography is under threat. The company's leadership is credible, and its partner and product progress is visible. Next inflection points will likely come as wallet launches, chip shipments and regulatory certifications roll out. For further information, the company's website, which they just updated — is quantumemotion.com.

